



# Ethernet Over SONET

## OPTI-6100® (MX or SMX Chassis) Ethernet Over SONET Module

### Product Features

- Three individual Ethernet ports
- Generic Framing Procedure (GFP) as per ITU-T G.7041
- Operates in any mid-speed slot of the OPTI-6100 (MX/SMX chassis)
- 10/100Base-T auto sensing interface
- Front panel RJ-45 connector
- Fully programmable and remotely manageable
- Front panel indicators:
  - Power/status
  - Link (per port)
  - Activity (per port)
- High-order and low-order virtual concatenation
- Industry-leading, 10-year warranty

Carriers are looking to increase revenues and one avenue is to convert existing DS3 clients to Ethernet. This offers higher prices and hence revenue, but at a lower price per bit basis.

The ADTRAN™ OPTI-6100 (MX and SMX chassis), compact SONET access multiplexers set a new standard in price/performance for edge multiplexing. The OPTI-6100 (MX/SMX chassis) Ethernet over SONET module furthers the economics of the system by implementing the industry-standard procedure for provisioning Ethernet services over SONET infrastructures. This permits the new tariff-enabling variable bandwidth transparent LAN services to be provisioned over existing infrastructures and OS systems. This process greatly lowers capital and expense costs while providing an optimized native mode data transport.

ADTRAN's OPTI-6100 (MX/SMX chassis) Ethernet over SONET module provides:

- Ethernet over SONET (EoS) interfaces for the OPTI-6100 (MX/SMX) systems
- Up to three 10/100Base-T Ethernet ports per card
- Up to 12 modules per OPTI-6100 MX system or 4 modules per OPTI-6100 SMX system
- Each port is provisionable at 10Mb or 100 Mb

- Ethernet frame encapsulation/decapsulation protocols:
  - ITU-T G.7041, Generic Framing Procedure (GFP)
  - ITU-T X.86/X.85, Link Access Procedure SDH (LAPS)
  - ITU-T Q.922, Link Access Procedure Frame Mode (LAPF)
  - RFC1662/2878, PPP Bridging Control Protocol (BCP)
- IEEE 802.3 half duplex and full duplex mode on 10/100Base-T Ethernet ports
- IEEE 802.3 Management Statistics (RMON) support
- Mapping and demapping of encapsulated Ethernet frames into and from low-order (VT1.5 SPE) and high-order (STS-1 SPE) virtual concatenated payloads
- Mapping and demapping of encapsulated Ethernet frames into and from a single contiguous concatenated (STS-3c) payload or a single low-order/high-order (VT1.5/STS-1) payload
- Per-port Ethernet side and SONET/SDH system side loopback for system level diagnostics

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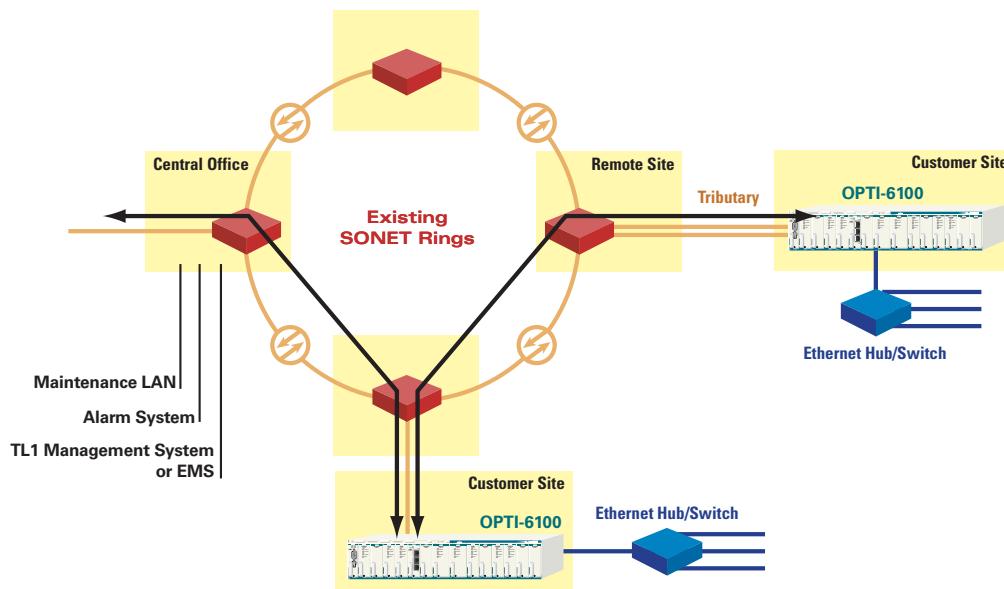
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ADTRAN is an ISO 9001:2000  
and TL 9000 registered company.

## OPTI-6100 (MX/SMX chassis) Ethernet Over SONET Module



## Product Specifications

### Front Panel Features

- Power LED
- Status LED
- Link LED
- Activity LED

### Mechanical

- **Dimensions:** 3 in. H x 1.1 in. W x 10 in. D
- **Weight:** Less than 1 lb
- **Mounting:** OPTI-6100 MX or OPTI-6100 SMX chassis, any MS slot

### Interfaces

#### Subscriber Interfaces

- 10/100Base-T (3), RJ-45 (1) per card
- Category 5 cabling

### Mapping

- STS-1 per port or
- N x STS-1 or per port, n=1 to 3
- N x VT1.5 per port, n=1 to 28

### Electrical

- ±24 V or -48 V, nominal
- A and B feeders
- **Power consumption:** 6.5 W

### Regulatory Standards

- NEBS Level 3
- GR-1089-CORE, Issue 3
- NRTL Safety Listed

### Management

- Menus via the local craft port (SCM)
- Remotely via Telnet
- TL-1
- SNMP

### Environment

- **Operating temperature:** -40°C to +65°C
- **Storage temperature:** -40°C to +85°C
- **Relative humidity:** Up to 95 percent, noncondensing

## Ordering Information

Equipment	Part #
OPTI-6100 (MX/SMX chassis) Ethernet Over SONET Module	1184510L1